What is claimed is:

1. A method for transferring data on a bus system in which both isochronous communication and asynchronous communication are employed; said isochronous communication is for any device on the bus to receive synchronous data; said asynchronous communication is for a predetermined device to receive asynchronous data; said synchronous data may contain actual data; said synchronous data also contains encryption identification information at an area other than said actual data; said encryption identification information indicates the status of encryption of said actual data; and encrypted actual data is decrypted using decrypting information obtained through the following steps:

a) a receiving device receiving said synchronous data makes a request for decrypting information of said actual data to a sending device sending said synchronous data via said asynchronous communication, if said encryption identification information indicates that said actual data is encrypted;

b) said sending device receiving said request sends one of:

i) encrypted decrypting information of said actual data; and

ii) data required for obtaining said decrypting information

to said receiving device via said asynchronous communication; and

c) said receiving device executes one of:

i) taking out said decrypting information from said encrypted decrypting information when said receiving device receives said encrypted decrypting information; and

ii) obtaining said decrypting information using said data for obtaining said decrypting information when said receiving device receives said data for obtaining decrypting information.

2. The method for transferring data as defined in Claim 1, wherein a plurality of types of procedures are available between the steps of detecting encryption of said actual data and obtaining said decrypting information by said receiving device receiving said synchronous data; and said receiving device executes the next steps for obtaining said decrypting information before requesting said decrypting information:

i) querying said sending device of types of procedures executable by said sending device;

ii) selecting a procedure from those executable by both sending device and receiving device; and

iii) obtaining said decrypting information in accordance with said selected procedure.

3. The method for transferring data as defined in Claim 2, wherein said procedure is selected in accordance with a predetermined priority when there are a plurality of procedures executable by both of said sending device and said receiving device.

4. The method for transferring data as defined in Claim 1, wherein a plurality of types of procedures are available between the steps of detecting encryption of said actual data and obtaining of said decrypting information by said receiving device receiving said synchronous data; and said receiving device executes the next steps for obtaining said decrypting information:

i) starting said procedure selected from said plurality of types of procedures in accordance with a predetermined priority;

ii) re-selecting one of said procedures until said procedure executable by said sending device is found when the procedure selected by said receiving device is not executable by said sending device; and

iii) obtaining said decrypting information in accordance with the selected procedure when a procedure executable by said sending device is found.

5. The method for transferring data as defined in one of Claims 2 to 4, wherein said asynchronous data transmitted between said sending device and said receiving device in accordance with said selected procedure contains an identifier for indicating the type of said procedure executed.

6. The method for transferring data as defined in one of Claims 1 to 5, wherein said receiving device authenticates whether said sending device is an authorized sending device before making a request for said decrypting information.

7. The method for transferring data as defined in one of Claims 1 to 5, wherein said sending device receiving a request for said decrypting information authenticates that said receiving device is an authorized receiving device before sending encrypted decrypting information of said actual data after confirming.

8. The method for transferring data as defined in one of Claims 1 to 5, said sending device and said receiving device mutually authenticate that both are authorized sending device and receiving device before said receiving device makes a request for said decrypting information.

9. The method for transferring data as defined in one of Claims 1 to 8, wherein the next steps are executed before said receiving device makes a request for said decrypting information:

i) said receiving device sends information required by said sending device at least for creating a common key to said sending device; and

ii) said sending device sends information required by said receiving device at least for creating said common key to said receiving device;

and then said sending device encrypts decrypting information using said common key and sends said encrypted decrypting information; and said receiving device takes out said decrypting information from said encrypted decrypting information received using said common key.

10. The method for transferring data as defined in one of Claims 1 to 5, wherein only said actual data is encrypted.

11. The method for transferring data as defined in one of Claims 1 to 5, wherein said sending device has a signal source of said actual data inside and determines encryption of each of said actual data in a fixed length unit output from said signal source; and said sending device places encrypted actual data and non-encrypted actual data in different output units of said synchronous communication, and then outputs them to said bus system.

12. The method for transferring data as defined in Claim 11, wherein said receiving device specifies a percentage of said encrypted actual data and said non-encrypted actual data to said sending device using said asynchronous communication; and

said sending device changes the percentage of encryption in accordance with said specification.

13. The method for transferring data as defined in one of Claims 1 to 5, wherein said sending device has a signal source of said actual data inside, and determines a percentage of encryption of said actual data in a fixed length unit output from said signal source; and said sending device places said actual data in an output unit of said synchronous communication, and then outputs it to said bus system.

14. The method for transferring data as defined in Claim 13, wherein said receiving device specifies a percentage of said encryption to said sending device using said asynchronous communication, and said sending device changes the percentage of encryption in accordance with said specification.

15. The method for transferring data as defined in one of Claims 1 to 5, wherein said sending device sends said synchronous data excluding said actual data until at least said decrypting information is requested; and said sending device starts sending synchronous data containing said actual data only after at least receiving said request for said decrypting information.

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